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(54) Title: CARTILAGE REPAIR MIXTURE CONTAINING ALLOGRAFT CHONDROCYTES

(57) Abstract: The invention is directed toward a sterile cartilage defect implant material comprising milled lyophilized allograft cartilage pieces ranging from 0.01 mm to 1.0 mm in size in a bioabsorbable carrier taken from a group consisting of sodium hyaluronic acid and its derivatives, gelatin, collagen, chitosan, alginate, buffered PBS, Dextran or mixed polymers with allograft chondrocytes added in an amount ranging from 2.5×10^5 to 2.5×10^7 .



WO 2005/110278 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/08798

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61F 2/00(2006.01)

USPC: 424/423

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 424/423

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,786,217 A (TUBO et al.) 28 July 1998 (28.07.1998), Abstract, summary of the invention, columns 10 and 12, and claims.	1-20
Y	US 6,030,635 A (GERTZMAN et al.) 29 February 2000 (29.02.2000), abstract, summary of the invention, examples, and claims.	1-20
Y	US 2001/0016646 A1 (REUGER et al.) 23 August 2001 (23.08.2001), abstract, summary of the invention, and claims.	1-20
Y	US 2001/0051834 A1 (FRONDOZA et al.) 13 December 2001 (13.12.2001), abstract, figure 7, summary of the invention, and claims.	1-20
Y	US 2002/0192263 A1 (MERBOTH et al.) 19 December 2002 (19.12.2002), abstract, summary of the invention, and claims.	1-20
Y	PERETTI et al. Cell-based tissue-engineered allogenic implant for cartilage repair. Tissue Engineering. 2000, Vol. 6, No. 5, pages 567-576, especially page 567-569.	1-20
Y	NIXON et al. New horizons in articular cartilage repair. AAEP Proceedings. 2001, Vol. 47, pages 217-226, especially page 217.	1-20

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PERETTI et al. A biomechanical analysis of an engineered cell-scaffold implant for cartilage repair. <i>Annals of Plastic Surgery</i> . 2001, Vol. 46, No 5, pages 533-537, especially page 533 and 536.	1-20
Y	GERTZMAN & SUNWOO. A pilot study evaluating sodium hyaluronate as a carrier for freeze-dried demineralized bone powder. <i>Cell and Tissue Banking</i> . 2001, Vol. 2, pages 87-94, especially abstract and materials & methods.	1-20
Y	GIROTTO et al. Tissue-specific gene expression in chondrocytes grown on three-dimensional hyaluronic acid scaffolds. <i>Biomaterials</i> . 2003, Vol. 24, pages 3265-3275, especially abstract and materials & methods.	1-20

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:
EAST: USPAT, PG-PUB, USOCR, JPO, EPO, DERWENT

STN: CAPLUS, BIOSIS, MEDLINE

SEARCH STRATEGIES:

hyaline or fibrous, cartilag?,
Implant or carrier or support or matrix or polymer?
hyaluron? or gelatin? or collagen? or dextran or chitosan or pbs or algin?
allog? or allogene? or allograft and cell or chondrocyt?
mill? or grind? or ground? or powder and lyophil? or freez?